

Showcasing Student Projects

KY Tech School System

"Today an Education, Tomorrow a Career."

**Celebrating
Career and Technical Education
Excellence
2007**



Welcome to the KY Tech School System's gallery of student created projects. To celebrate the excellent skills of KY Tech students, we are delighted to be able to promote some of their outstanding work by offering this picturesque slide show of the projects.

Under the skillful guidance of KY Tech instructors, students all over the Commonwealth of Kentucky have benefited by being enrolled in technical education and skills training programs. We are proud of their efforts.

According to the U.S. Bureau of Labor Statistics, eighteen of the 20 fastest growing occupations within the next decade will require career and technical education.

In the KY Tech School System, we help build essential skills for a career.

KY Tech - Boone Co. ATC

Welding Display

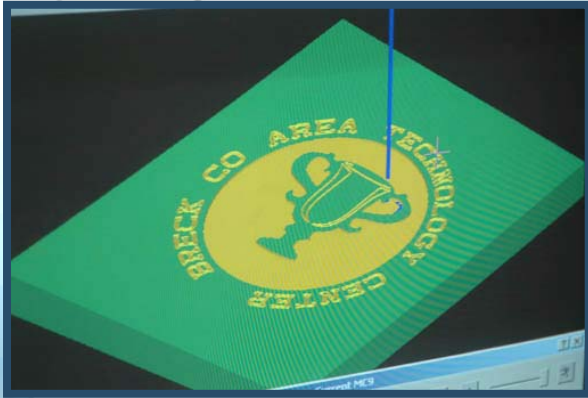


Welding students under the direction of Instructor Michael Riley constructed a life sized *welder* to greet students at the front door of the Boone Co. ATC. Although this is a welding figure, Sheet Metal Instructor Kevin McKinney and

his students assisted in the fabrication of the welding unit stand. Likewise, they created the hands of the welder out of ½" bar stock. John Thomas' auto body repair students added a special touch to the project by painting the base of the structure. The welding model display has created quite a bit of interest and discussion among students and visitors. Plans are to use this display to help promote these career areas.

KY Tech - Breckinridge Co. ATC

Student of the Month Recognition Program



Machine Tool Technology students under the direction of Instructors Dean Monarch and Tom Thompson are currently machining a special coin that will be given to students for exemplary behavior and work ethic.

Principal James Carroll, a former military sergeant, wanted to pattern this activity after the "Military Coin" program which fosters "on the spot recognition of desirable behavior," says Carroll. "I want our students to realize that their behavior is always under scrutiny and we reward those who display an outstanding work ethic in their program. Each month, all of our instructors will nominate a student for this award. Each student will receive the specially designed and machined coin."



KY Tech - Clark Co. ATC

Pilot View Elementary Outdoor Shelter Project



Students in Richard Butcher's carpentry class are designing and building a new outdoor classroom for Pilot View Elementary. The total size of the structure is 24' x 50' and includes a covered shelter, storage room and tables for students to participate in outdoor classroom activities. The shelter is large enough to accommodate the entire elementary student body for an outdoor assembly under cover. The project is funded through the Pilot View Elementary School PTO and is part of a School-to-Careers project where elementary students learn about construction careers and activities.

KY Tech - Floyd Co. ATC

Building an Adirondack Cedar Canoe Guide Boat



Students in Carpentry Instructor James Taylor's class are busy developing and refining their skills by taking part in a joint Tech Prep project with Prestonsburg HS and Betsy Lane HS which involves building an Adirondack Cedar Canoe Guide Boat.

"This has been an exciting project for my students because it's something most of them have never been involved in building. And, my students have to use a lot of hand-eye coordination in cutting down the ribs for this canoe," says Taylor. "They have learned a lot about the terminology and construction of a canoe. Specifically, we have all learned about the rocker of the canoe - which is the shape of the canoe that steers it. When students build something as in-depth and difficult as this type of project, they are learning skills, teamwork, precision and work ethic."

KY Tech - Garrard Co. ATC

Special Display Case designed and built to house a 4-foot replica of the U.S.S. Garrard.



Students in Greg Taylor's CAD (computer aided drafting) class designed the plans for the case. Mike Oakley's carpentry students constructed the display and electricity students in Don Bowker's class installed the lighting.

After the attack on Pearl Harbor, a campaign to raise money to finance the war began across the United States. In 1943, Garrard Co. was given a goal of selling \$350,000 worth of war bonds and exceeded its goal by \$83,000. Additionally, over 700 residents were enlisted in the military and actively participating in the war.

To recognize this act of patriotism and the generosity demonstrated by residents, the U.S.S. Garrard was named after this small county in Central Kentucky. It served as a transport ship in WWII. She participated in the Battle of Okinawa, transported troops and officers to strategic sites during the war, and honorably transported liberated POW's from Japan.

KY Tech - Harrison Co. ATC Carpentry



Harrison County ATC Carpentry Instructor Gary Lail and his students have worked with Harrison Co. HS Pre-Engineering (CAPSTONE) Instructor Larry Kendall and his students to engineer and build a “boat” structure for the new Cynthiana/Harrison County Park play ground. This is a collaborative Tech Prep project, with additional funding provided by the Harrison County Fiscal Court.

Detail drawings, created by pre-engineering students, were given to the construction class. The floor and wall framing students figured a materials list and received a quote for the project. The CAPSTONE class priced playground equipment which will later be used in to form the play area around the boat.

The boat was initially set up in the construction classroom. It was framed and partially sided. The floor joists where cut and put into place. The stair risers where precut and then dry fitted into place. After all parts that could be precut were done, the boat was disassembled and taken to the park. A total of 5 loads of materials and walls were hauled onto the site.

KY Tech – Harrison Co. ATC Welding



It's a first in KY Tech – a Sculpture Club has been formed at the Harrison Co. ATC by Welding Instructor Joe Pawley and plenty of excitement has been generated.

The first official project became a reality when some of the teachers at Eastside Elementary requested a sculpture for their school. A few ideas were shared and Pawley's team decided to do a metal Bronco since it was the school's mascot. It was a challenging project and some of the teachers at the ATC donated supplies to assist in the effort. Electricity Instructor Mike Workman provided four horse shoes and Machine Tool Instructor Hoyt Burns supplied some small rod material. The football coach even agreed to let the team borrow his fiberglass mascot 'Thunder' to look at during construction.

"The project was slow and tedious as every piece had to be sized, bent and cut by hand," says Pawley. "The sculpture team rose to the occasion in a big way by putting in long hours. I was impressed by their performance."

The team even created a foal to go along with the bronco. Eastside Principal Mr. Rick Dycus has placed both sculptures in concrete pads in the landscape of the school.

Hughes Jones - Harrodsburg ATC

Live work – building a house



This three bedroom house is being constructed by students under the supervision of Carpentry Instructor Eddie Durr. Joe Fister's electrical technology students have completed the wiring for the home and passed all the appropriate inspections. Information Technology Instructor Danny Wilder will guide his students in completing the networking, CATV and phone cabling for all rooms. This live work has provided students with an opportunity to learn and perfect skills through a hands on approach.

KY Tech - JD Patton ATC

Live work – golf cart



Photo at left: Three of the students who proudly worked on the cart are pictured left to right, Bob Mills, 17, Dixie senior; Elizabeth Porter 17, Dixie senior; and Ashton Wilson, 17, Dixie senior.



JD Patton Collision Repair students, under the direction of Instructor Jim Wietholther, hit a homerun for the Dixie Heights High School baseball team, even though they aren't members of the team.

Wietholther's students renovated and painted a golf cart that belonged to the baseball team. It had been vandalized with orange traffic paint and was in dire need of repair. The students used the techniques learned in their collision repair class to renovate the cart. The golf cart was taken apart, hand sanded, and painted. In addition, Student Bob Mills air brushed the "Dixie Heights" name and "Colonel" logo on the front of the cart as well as a blazing fast ball on the side.

KY Tech - Lake Cumberland ATC

Gazebo Project



Carpentry Instructor Charles Roy and his students have been busy designing and constructing outdoor gazebo's as the major part of an integrated project with high school math students. Roy's students will build up to ten gazebos to be distributed throughout the school district and local community. The size of each gazebo is 10' in diameter and will accommodate approximately eight people for comfortable seating. A special gazebo is being constructed for children in a nearby day care center.

KY Tech – Marion Co. ATC

Can you build a high end “Gaming Computer?” KY Tech students did!

“Gaming Computers” are a big hit in Information Technology Instructor Anita Akridge’s PC Repair Hardware class and she has found a way to incorporate academic disciplines including English and finance and accounting into the coursework for her students.

In Akridge’s first endeavor to build a custom computer, students were required to research the components they would need to build the system as well as the associated costs. As a writing activity, they were required to compose a persuasive writing piece to request funding for the project.

“It was a wonderful learning experience for my students and they have great pride in their work,” says Akridge. “In building the computer, they had to pay close attention to details - especially when dealing with compatibility issues. I’m proud of what they have accomplished in both projects.”

The second computer has been given the description of “Gaming Computer” because it contains high-end components that can run complex graphics smoothly and efficiently required for most advanced games. It is currently on display at the ATC and has been used to promote Information Technology during student tours. Students love it.



Photo above: Some of the students who participated in building the computer are (l to r): Megan Yates, Chan Railey, Brandon Sallee, and Laura Higdon.

Photo at right: 2nd computer built by students.



The first computer was raffled during the Marion Co. Ham Days festival. The proceeds were donated to a memorial fund created for the young son of Pfc. Adam Hughes. He was a Marion Co. resident killed in Iraq.



KY Tech – Mason Co. ATC



Wiring a Habitat for Humanity Home



Mason Co. ATC Electrical Technology Instructor David Collins and his second year electrical technology students worked for 1 hour every Monday, Tuesday, Wednesday and Friday during this past semester to completely wire this Habitat for Humanity home. Collins took on the responsibility of having his students provide all the labor for wiring the entire house including the service entrance, grounding system, all the lighting and receptacle outlets, pulling wire throughout the house, circuitry and wiring for the home's heating and air conditioning systems. He also took the leadership role of securing materials and parts for all the electrical work.

Once again, a KY Tech instructor has taken the bold step of having students apply the skills they have learned in the classroom to a worthy, real life project – for this group, it's been an electrifying experience and a real labor of love.

KY Tech - Nelson Co. ATC - Welding



Nelson Co. welding students, under the direction of Instructor Joe Grider, have put their skills to the test by designing and building a 28' wide x 18' tall sign for the New Haven City Park, which houses a running 1949 Santa Fe passenger train. The sign is symbolic of the era and will be on display for many years to come.

Grider's welding classes have worked diligently on this project for the last several weeks and a dedication ceremony is planned in April 2007.

"This park project is a good in-depth application of some of the skills learned in the welding class because it gives them an idea of situations they will encounter as a member of the future workforce. It also makes them conscientious about the importance of community service projects," says Grider. "I am proud of the dedication that these students have put forth because some of these kids are from the community in which this sign will be erected. They realize that this is a reflection of the skills they have learned while attending the welding program. So, they really wanted to do a good job to show the community the value this program brings to this county."

"It is a wonderful feeling to know that our local community has such trust and assurance in our ATC programs that they would put our students in charge of such a monumental project," says Principal John Sanders.